

***REMARKS***

This is a full and timely response to the outstanding non-final Office Action mailed January 28, 2004. Reconsideration and allowance of the application and presently pending claims 1-12, 16-18 and 23, as amended, are respectfully requested.

1. Indication of Allowable Subject Matter

Applicant appreciates the Examiner's statement that the subject matter of claims 2, 10 and 23 is allowable. Applicant has not amended these claims 2, 10 and 23 in this response because the Applicant believes, for the reasons detailed below, that the parent claims from which claims 2, 10 and 23 depend are allowable over the cited art.

2. Present Status of Patent Application

Upon entry of the amendments in this response, claims 1-12, 16-18 and 23 remain pending in the present application. More specifically, claims 2 and 5-7 are directly amended and claims 13-15 and 19-22 are canceled. These amendments are specifically described hereinafter. It is believed that the foregoing amendments add no new matter to the present application.

3. Response to Objection of Claim 21

In the Office Action, claim 21 is objected to. Claim 21 is canceled without prejudice, waiver, or disclaimer, and therefore, the rejection to this claim is rendered moot.

4. Amendment of Claim 2

Applicant has amended claim 2 to correct a minor editorial error.

5. Response to Rejection of Claims 1, 3-9 and 11-22 Under 35 U.S.C. §102

In the Office Action, claims 1, 3-9 and 11-22 stand rejected under 35 U.S.C. §102(e) as allegedly being unpatentable by *Cheng et al.* (U.S. Patent 6,515,541), hereinafter *Cheng*.

a. Characterization of the Filing Dates of the Cited Art and the CIP Application

Applicant respectfully points out that the present application is a Continuation-in-Part (CIP) Application of the now issued U.S. patent 6,639,465 (referred to hereinafter as the '465 patent). The '465 patent was filed on March 27, 2001. Generally, the Specification of the present application was drafted by adding new matter to the '465 patent starting at paragraph 67, and by adding Figs. 11-13.

Subject matter of the present application that is fully disclosed in the Specification between paragraphs 22 and 66 corresponds to the Specification of the '465 patent. Therefore, subject matter in the Specification between paragraphs 22 and 66 of the present application was clearly in the possession of the Applicant on or before the March 27, 2001 filing date of the '465 patent. Applicant notes that the filing date of the cited art, *Cheng*, is June 13, 2001. Accordingly, Applicant believes that subject matter fully disclosed in the Specification between paragraphs 22 and 66, and subject matter fully disclosed in Figs. 1-10, is entitled to the benefit of the March 27, 2001 filing date of the '465 patent. However, if the Examiner would like the Applicant to swear behind the June 13, 2001 filing date of *Cheng*, with respect to subject matter fully disclosed in the Specification between paragraphs 22 and 66, and disclosed in Figs. 1-10, Applicant will do so in the next Office Action.

Applicant appreciates that the new subject matter of the present application is entitled only to the benefit of the filing date of the CIP application, September 12, 2003. In the arguments for allowability of the claims provided below, Applicant will direct the Examiner to the paragraphs of the Specification that disclose the subject matter of the claim at issue such that the Examiner can readily determine the priority date of the claimed subject matter.

b. Claim 1

Applicant respectfully submits that independent claim 1 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 1 is shown below:

1. (Original) A system which adjusts impedance of a power amplifier system, comprising:

a first power amplifier amplifying a communication signal;

a bias controller for outputting a control signal, the bias controller coupled to a communication device such that the communication signal is sensed;

a second power amplifier responsive to the control signal, such that the bias controller activates the second power amplifier when an amplitude of the communication signal is at least equal to a predetermined amplitude, and such that the bias controller deactivates the second power amplifier when the amplitude of the communication signal is less than the predetermined amplitude; and

a prematching impedance network coupled to at least the second power amplifier such that when the bias controller activates the second power amplifier the prematching impedance network adjusts a system impedance to a first value when the first power amplifier is activated, and such that when the bias controller deactivates the second power amplifier the prematching impedance network adjusts the system impedance to a second value when the first power amplifier and the second power amplifier are activated.

1) The element of “a first power amplifier amplifying a communication signal” is at least fully disclosed in the Specification at paragraphs 23 and 24, and in Fig.

2.

2) The element of “a bias controller for outputting a control signal, the bias controller coupled to a communication device such that the communication signal is sensed” is at least fully disclosed in the Specification at paragraphs 23 and 24, and in Fig.

2.

3) The element of “a second power amplifier responsive to the control signal, such that the bias controller activates the second power amplifier when an amplitude of the communication signal is at least equal to a predetermined amplitude, and such that the bias controller deactivates the second power amplifier when the amplitude of the communication signal is less than the predetermined amplitude” is at least fully disclosed in the Specification at paragraphs 23, 24 and 37, and in Fig. 2.

4) The element of “a prematching impedance network coupled to at least the second power amplifier such that when the bias controller activates the second power amplifier the prematching impedance network adjusts a system impedance to a first value when the first power amplifier is activated, and such that when the bias controller deactivates the second power amplifier the prematching impedance network adjusts the

system impedance to a second value when the first power amplifier and the second power amplifier are activated” is at least fully disclosed in the Specification at paragraphs 56 and 57, and in Fig. 10.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 1 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 1 *on or before* March 27, 2001 (the filing date of the ‘465 patent). Since the subject matter of claim 1 precedes the June 13, 2001 filing date of *Cheng*, *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

c. Claim 3

Applicant respectfully submits that dependent claim 3 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 3 is shown below:

3. (Original) The system of claim 1, wherein the prematching impedance network is coupled to an input of the second power amplifier.

The element of “wherein the prematching impedance network is coupled to an input of the second power amplifier” is at least fully disclosed in the Specification at paragraphs 56, 57 and 61, and in Fig. 10.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 3 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 3 (and its intervening claim 1) *on or before* March 27, 2001 (the filing date of the ‘465 patent). Since the subject matter of claim 3 precedes the June 13, 2001 filing date of *Cheng*, *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

d. Claim 4

Applicant respectfully submits that dependent claim 4 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 4 is shown below:

4. (Original) The system of claim 1, wherein the prematching impedance network is coupled to an output of the second power amplifier.

The element of “wherein the prematching impedance network is coupled to an output of the second power amplifier” is at least fully disclosed in the Specification at paragraphs 56 and 57, and in Fig. 10.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 4 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 4 (and its intervening claim 1) ***on or before*** March 27, 2001 (the filing date of the ‘465 patent). Since the subject matter of claim 4 precedes the June 13, 2001 filing date of *Cheng*, *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

e. Claim 5

Applicant respectfully submits that dependent claim 5 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 5 is shown below:

5. (Currently amended) The system of claim 1, further comprising:  
a first portion of the prematching impedance network is coupled to an input of the first power amplifier;  
a second portion of the prematching impedance network is coupled to an input of the second power amplifier; and  
an input matching impedance and coupler coupled between a transmit unit providing the communication signal and the first portion of the prematching

impedance network, and coupled between the transmit unit and the second portion of the prematching impedance network.

1) The element of “a first portion of the prematching impedance network is coupled to an input of the first power amplifier” is at least fully disclosed in the Specification at paragraphs 56 and 57, and in Figs. 11 and 12.

2) The element of “a second portion of the prematching impedance network is coupled to an input of the second power amplifier” is at least fully disclosed in the Specification at paragraphs 67 - 73, and in Figs. 11 and 12.

3) The element of “an input matching impedance and coupler coupled between a transmit unit providing the communication signal and the first portion of the prematching impedance network, and coupled between the transmit unit and the second portion of the prematching impedance network” is at least fully disclosed in the Specification at paragraphs 23 and 24, and in Fig. 2.

As demonstrated above, the subject matter of the “first portion” and “second portion” elements of claim 5 is at least fully disclosed in the Specification between paragraphs 67-73, and in Figs. 11 and 12. Accordingly, the Applicant was in possession of the subject matter of the “first portion” and second portion” elements of claim 5 on or before the filing date of the CIP application, September 12, 2003. Additionally, the Applicant was in possession of the subject matter of intervening claim 1, and the subject matter of the “input matching impedance and coupler” of claim 5, *on or before* March 27, 2001 (the filing date of the ‘465 patent).

Applicant notes that with respect to the subject matter of intervening claim 1 (upon which claim 5 depends upon), *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon.

However, since two of the above-described elements of claim 5 correspond to the new subject matter added in the CIP application, *Cheng* may be a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon, ***but only if*** *Cheng* discloses ***all*** the above recited features of claim 5. Applicant respectfully notes that the “input matching impedance and coupler” element, and the “first portion” and “second portion” elements, recited in claim 5 are ***three*** separate and distinct elements.

*Cheng* is limited to disclosing the 4-port Asymmetric Input Coupler 306 which “asymmetrically divides the RF source signal into two asymmetric signal components” (Col. 8, lines 21-23). At most, the *Cheng* 4-port Asymmetric Input Coupler 306 corresponds to the Applicant’s recited “input matching impedance and coupler” element 220. [The recited “input matching impedance and coupler” element 220, illustrated in Applicant’s Figs. 2-3 and 8-13, receives the communication signal from transmit unit 206, such that the “communication signal travels through the input matching impedance and coupler 220 to the power amplifiers 214 and 216 via connections 224 and 226, respectively” (Page 5, paragraph 24).] Accordingly, *Cheng* does not *expressly* disclose the “first portion of the prematching impedance network” or the “second portion of the prematching impedance network ” as recited in claim 5 because *Cheng* is disclosing a component corresponding to the Applicant’s recited input matching impedance and coupler element 220. Therefore, *Cheng* fails to disclose each and every element of claim 5, and the rejection to this claim should be withdrawn.

f. Claims 6 and 7

Applicant respectfully submits that dependent claims 6 and 7 are allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claims 6 and 7 are shown below:

6. (Currently amended) The system of claim 1, further comprising:  
a first portion of the prematching impedance network is coupled to an input of the second power amplifier;  
a second portion of the prematching impedance network is coupled to an output of the second power amplifier, and  
an input matching impedance and coupler coupled between a transmit unit providing the communication signal and the first portion of the prematching impedance network, and coupled between the transmit unit and the second portion of the prematching impedance network.

7. (Currently amended) The system of claim 1, further comprising:  
a first portion of the prematching impedance network is coupled to an input of the first power amplifier;

a second portion of the prematching impedance network is coupled to an input of the second power amplifier;

a third portion of the prematching impedance network is coupled to an output of the second power amplifier, and

an input matching impedance and coupler coupled between a transmit unit providing the communication signal and the first portion of the prematching impedance network, and coupled between the transmit unit and the second portion of the prematching impedance network.

As noted above in the argument of allowability of claim 5, *Cheng* is limited to disclosing the 4-port Asymmetric Input Coupler 306 which “asymmetrically divides the RF source signal into two asymmetric signal components” (Col. 8, lines 21-23). At most, the *Cheng* 4-port Asymmetric Input Coupler 306 corresponds to the Applicant’s recited “input matching impedance and coupler” element 220. Accordingly, *Cheng* does not *expressly* disclose the “first portion of the prematching impedance network” or the “second portion of the prematching impedance network ” as recited in claims 6 and 7. Therefore, *Cheng* fails to disclose each and every element of claims 6 and 7, and the rejection to these claims should be withdrawn.

g. Claim 8

Applicant respectfully submits that independent claim 8 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 8 is shown below:

8. (Original) A method for adjusting impedance of a power amplifier system, the method comprising the steps of:

combining an output of a first power amplifier with an output of a second power amplifier via a coupler that couples an output connection of the first power amplifier with an output connection of the second power amplifier;

adjusting a prematching impedance network coupled to the second power amplifier adjusts a system impedance to a first value when the second power amplifier is not actuated; and

adjusting the prematching impedance network to a second value when the second power amplifier is actuated.



1) The feature of “combining an output of a first power amplifier with an output of a second power amplifier via a coupler that couples an output connection of the first power amplifier with an output connection of the second power amplifier” is at least fully disclosed in the Specification at paragraph 24 and implicitly in Fig. 2.

2) The feature of “adjusting a prematching impedance network coupled to the second power amplifier adjusts a system impedance to a first value when the second power amplifier is not actuated” is at least fully disclosed in the Specification at paragraphs 56-57.

3) The feature of “adjusting the prematching impedance network to a second value when the second power amplifier is actuated” is at least fully disclosed in the Specification at paragraphs 56-57.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 8 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 8 *on or before* March 27, 2001 (the filing date of the ‘465 patent). Since the subject matter of claim 8 precedes the June 13, 2001 filing date of *Cheng, Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

h. Claim 9

Applicant respectfully submits that dependent claim 9 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 9 is shown below:

9. (Original) The method of claim 8, further comprising the steps of:  
adjusting the prematching impedance network to a first impedance when the second power amplifier is not actuated; and  
adjusting the prematching impedance network to a second impedance when the second power amplifier is actuated.

1) The feature of “adjusting the prematching impedance network to a first impedance when the second power amplifier is not actuated” is at least fully disclosed in the Specification at paragraphs 56-57.

2) The feature of “adjusting the prematching impedance network to a second impedance when the second power amplifier is actuated” is at least fully disclosed in the Specification at paragraphs 56-57.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 9 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 9 (and its intervening claim 8) *on or before* March 27, 2001 (the filing date of the ‘465 patent). Since the subject matter of claim 9 precedes the June 13, 2001 filing date of *Cheng, Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

i. Claim 11

Applicant respectfully submits that dependent claim 11 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 11 is shown below:

11. (Original) The method of claim 8, further comprising the step of coupling the prematching impedance network to an input of the second power amplifier.

The feature of “coupling the prematching impedance network to an input of the second power amplifier” is at least fully disclosed in the Specification at paragraphs 58 and 61, and in Fig. 10.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 11 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 11 (and its intervening claim 8) *on*

*or before* March 27, 2001 (the filing date of the '465 patent). Since the subject matter of claim 11 precedes the June 13, 2001 filing date of *Cheng*, *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

j. Claim 12

Applicant respectfully submits that dependent claim 12 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 12 is shown below:

12. (Original) The method of claim 8, further comprising the step of coupling the prematching impedance network to the output of the second power amplifier.

The feature of "coupling the prematching impedance network to the output of the second power amplifier" is at least fully disclosed in the Specification at paragraphs 56 and 57, and in Fig. 10.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 12 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 12 (and its intervening claim 8) *on or before* March 27, 2001 (the filing date of the '465 patent). Since the subject matter of claim 12 precedes the June 13, 2001 filing date of *Cheng*, *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

k. Claim 16

Applicant respectfully submits that independent claim 16 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 16 is shown below:

16. (Original) A system for adjusting impedance of a power amplifier system, comprising:

means for combining an output of a first power amplifier with an output of a second power amplifier via a coupler that couples an output connection of the first power amplifier with an output connection of the second power amplifier; and

a prematching impedance network means coupled to the second power amplifier for adjusting a system impedance to a first value when the second power amplifier is not actuated, and for adjusting a system impedance to a second value when the second power amplifier is actuated.

1) The element of “means for combining an output of a first power amplifier with an output of a second power amplifier via a coupler that couples an output connection of the first power amplifier with an output connection of the second power amplifier” is at least fully disclosed in the Specification at paragraph 24, and in Figs. 2 and 3.

2) The element of “a prematching impedance network means coupled to the second power amplifier for adjusting a system impedance to a first value when the second power amplifier is not actuated, and for adjusting a system impedance to a second value when the second power amplifier is actuated” is at least fully disclosed in the Specification at paragraphs 58 and 61, and in Fig. 10.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 16 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 16 *on or before* March 27, 2001 (the filing date of the ‘465 patent). Since the subject matter of claim 16 precedes the June 13, 2001 filing date of *Cheng*, *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

I. Claim 17

Applicant respectfully submits that dependent claim 17 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 17 is shown below:

17. (Original) The system of claim 16, wherein the prematching impedance network means is coupled to an input of the second power amplifier.

The element of “wherein the prematching impedance network means is coupled to an input of the second power amplifier” is at least fully disclosed in the Specification at paragraphs 58 and 61, and in Fig. 10.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 17 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 17 (and its intervening claim 16) *on or before* March 27, 2001 (the filing date of the ‘465 patent). Since the subject matter of claim 17 precedes the June 13, 2001 filing date of *Cheng*, *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

m. Claim 18

Applicant respectfully submits that dependent claim 18 is allowable for at least the reason that *Cheng* is not a proper reference upon which to base a 35 U.S.C. §102(e) rejection upon. For the convenience of the Examiner, claim 18 is shown below:

18. (Original) The system of claim 16, wherein the prematching impedance network means is coupled to the output of the second power amplifier.

The element of “wherein the prematching impedance network means is coupled to the output of the second power amplifier” is at least fully disclosed in the Specification at paragraphs 56 and 57, and in Fig. 10.

As demonstrated above, the subject matter of each and every element and/or limitation of claim 18 is at least fully disclosed in the Specification between paragraphs 22 and 66, and is disclosed in Figs. 1-10. Accordingly, the Applicant was in possession of all embodiments of the invention as defined by claim 18 (and its intervening claim 16) *on or before* March 27, 2001 (the filing date of the ‘465 patent). Since the subject matter of

claim 18 precedes the June 13, 2001 filing date of *Cheng*, *Cheng* is not a reference upon which a proper rejection under 35 U.S.C. §102(e) may be based upon. Accordingly, the rejection to this claim should be withdrawn.

n. Claims 13-15 and 19-22

Claims 13-15 and 19-22 are canceled without prejudice, waiver, or disclaimer, and therefore, the rejection to these claims are rendered moot. Applicant takes this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of these canceled claims in a continuing application, if Applicant so chooses, and does not intend to dedicate any of the canceled subject matter to the public.

6. Common Obligation of Assignment

Applicant respectfully points out to the Examiner that at the time of invention, the subject matter of the present invention and the cited prior art patent to *Cheng* were under a common obligation of assignment to Skyworks Solutions, Inc. Under 35 USC 103(c), “subject matter developed by another person, which qualifies as prior art only under one or more subsections (e), (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.” (See also, MPEP §214.) Therefore, *Cheng* is not a proper reference upon which a rejection under 35 USC 103 can be maintained.



**CONCLUSION**

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-12, 16-18 and 23 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,

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